

Empowering Education with Generative Artificial Intelligence Tools: Approach with an Instructional Design Matrix

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Abstract

This study focuses on the potential of generative artificial intelligence tools in education, particularly through the practical application of the 4PADA FE instructional design matrix. The objective was to evaluate how these tools, in combination with the matrix, can enhance education and improve the teaching–learning process. Through surveys conducted with teachers from the University of ESPE Armed Forces who participated in the MOOC course “Generative Artificial Intelligence Tools for Education: GPT Chat Techniques”, the study explores the impact of these tools on education. The findings reveal that generative artificial intelligence tools are crucial in developing massive MOOC virtual classrooms when integrated with an instructional design matrix. The results demonstrate the potential of generative artificial intelligence tools in university education. By utilizing these tools in conjunction with an instructional design matrix, educators can design and deliver personalized and enriching educational experiences. The devices offer opportunities to enhance the teaching–learning process and tailor educational materials to individual needs, ultimately preparing students for the demands of the 21st century. The study concludes that generative artificial intelligence tools have significant potential in education. They provide innovative ways to engage students, adapt content, and promote personalized learning. Implementing the 4PADA FE instructional design matrix further enhances the effectiveness and coherence of educational activities. By embracing these technological advancements, education can stay relevant and effectively meet the digital world’s challenges.